Pearce, Jennifer

From: Newman, Alan
Sent: Thursday, February 9, 2017 2:23 PM
To: Lamberth, Larry; Annicella, Alan; Monell, Carol; Farmer, Alan
Subject: FW: TVA's Response to Environmental Advocacy Groups' Recent Claims regarding TVA's CCR Rule Compliance
Attachments: 2017-02-09 - Love ltr to Martineau - Response re TVA's Compliance with CCR Rule.pdf; Attachment A, EPACCRRule20Questions04152015.pdf; Attachment B, CCRSettlementAgreement.pdf; Attachment C, 150806 Letter from G. Pugh re BullRuntempstorage.pdf; Attachment D, EPA Souders Feb 18_2016.pdf

FYI,

Please be aware of issue in Tennessee with CCR and TVA and several public groups.
You may have gotten this from another source.

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From: Love, Kelly A [mailto:kalove@tva.gov]
Sent: Thursday, February 09, 2017 1:10 PM
To: Martineau, Robert, Jr. <Bob.martineau@tn.gov>
Cc: 'Shari.Meghreblian@tn.gov' <Shari.Meghreblian@tn.gov>; 'Pat.Flood@tn.gov' <Pat.Flood@tn.gov>; Chuck Head (Chuck.Head@tn.gov) <Chuck.Head@tn.gov>; Jenny Howard <jenny.howard@tn.gov>; Joe Sanders <joseph.sanders@tn.gov>; 'Tisha.calabrese@tn.gov' <Tisha.calabrese@tn.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; 'farmer.paul@epa.gov' <farmer.paul@epa.gov>; Zapata, Cesar <Zapata.Cesar@epa.gov>; Newman, Alan <Newman.Alan@epa.gov>; Celeste, Laurel <celeste.laurel@epa.gov>; Quirk, Sherry Ann <saquirk@tva.gov>; Birdwell, Jodie Allyn <jabirdwell0@tva.gov>
Subject: TVA's Response to Environmental Advocacy Groups' Recent Claims regarding TVA's CCR Rule Compliance

Commissioner Martineau –

Please find attached an electronic copy of a letter I've placed in the mail to you today. This letter responds to the December 21, 2016, letter to you from the Southern Environmental Law Center and other environmental advocacy groups claiming that TVA is not in compliance with the CCR Rule.

Best regards,
Kelly Love

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February 9, 2017

Robert J. Martineau, Jr.
Commissioner
Tennessee Department of Environment and Conservation
William Snodgrass Tower
312 Rosa L. Parks Avenue, 2nd Floor
Nashville, Tennessee 37243

Re: Letter from the Southern Environmental Law Center on Behalf of Itself and Other Environmental Advocacy Groups Concerning TVA's Compliance with the CCR Rule

Dear Commissioner Martineau:

We are writing in response to the December 21, 2016, letter to you from the Southern Environmental Law Center and various other environmental advocacy groups, including the Sierra Club, the Environmental Integrity Project, Earthjustice, the Southern Alliance for Clean Energy, and the Tennessee Clean Water Network (collectively SELC). SELC asserts that TVA is not complying with EPA's Coal Combustion Residual (CCR) Rule. It urges you to stop TVA from proceeding toward closure of its CCR impoundments while at the same time criticizing TVA for not closing its impoundments more quickly. As is common practice for SELC, it misstates information, invents "requirements" that it claims are being violated, and engages in hyperbole. We encourage you to reject SELC's request based on the following facts.

- First, TVA has correctly identified all of the CCR impoundments in Tennessee that are subject to the CCR Rule. SELC's claim ignores the distinction between inactive impoundments that are subject to the CCR Rule and closed impoundments and inactive landfills that are not subject to the Rule.
- Second, SELC ignores that EPA has extended the CCR Rule deadlines for inactive impoundments like TVA's that qualify for the extension. EPA extended these deadlines after entering into a settlement agreed to by, among others, the Environmental Integrity Project, the Sierra Club, and the Tennessee Clean Water Network. SELC has no legal basis for trying to accelerate the schedule for filing closure plans for inactive impoundments.
- Third, SELC attempts to make scandalous the unremarkable fact that TVA performed a beneficial use demonstration for bottom ash at TVA's Bull Run Fossil Plant. TVA performed the demonstration for its own internal decision-making purposes, and supplied the demonstration to SELC in response to a Freedom of Information Act request. Due to conversations with TDEC, TVA has determined at this time not to use bottom ash to close the

fly ash pond even though the beneficial use demonstration concluded that doing so would not be harmful to human health or the environment and would result in a net benefit to the environment by substituting for virgin materials, *i.e.*, borrow soil.

- Fourth, the closure plans that TVA has posted for impoundments that are subject to the Rule fully comply with the requirements of the CCR Rule, and SELC's claim to the contrary is based on a misreading of the Rule.

Background

To better understand TVA's CCR management activities, we think it is useful to put those activities in context. The December 2008 TVA Kingston ash spill prompted not only EPA's CCR Rule, but also a TVA commitment in 2009 to convert all of the wet CCR management processes at its plants to dry processes. This includes ceasing use of CCR impoundments and disposing of newly-generated CCR in lined landfills if the material cannot be beneficially sold or reused. This commitment was widely acclaimed, including by environmental advocacy groups. For example, a spokesman for the Southern Alliance for Clean Energy stated, "[w]e're glad that TVA is moving ahead with dry storage."[1] TVA's effort was sufficiently important that the Tennessee General Assembly directed TDEC to track TVA's progress toward meeting the commitment and to provide status reports annually to the legislature.

Since 2009, TVA has worked to meet this commitment at a cost of hundreds of millions of dollars. TVA has developed dry conversion plans at all of its plants, not only those in Tennessee. These plans necessarily are conceptual. As budgets are approved and environmental reviews are completed, TVA has been implementing conversion projects at its Tennessee plants. These include:

- At the **Bull Run Fossil Plant**, TVA has been dewatering all of its fly ash, bottom ash, and gypsum since 2015 and dry-placing it in an on-site landfill. A new CCR-Rule compliant landfill for production ash is being engineered and the permitting process has been initiated with the state. TVA has completed an Environmental Impact Statement (EIS) for the landfill.
- At the **Cumberland Fossil Plant**, approximately 70 percent of the fly ash is sold for beneficial reuse and the rest is dry-stacked in a permitted on-site landfill. Approximately 90 percent of the plant's gypsum continues to be sold for beneficial reuse to an adjacent wallboard plant. Bottom ash is still sluiced to an impoundment. On December 2, 2016, TVA published a Notice of Intent to prepare an EIS that will evaluate the closure alternatives for the existing Cumberland ash ponds, the impact of constructing and operating a bottom ash dewatering facility, and the construction and operation of a new on-site dry CCR landfill for future production CCR.
- At the **Gallatin Fossil Plant**, TVA has constructed and is operating a new CCR-Rule compliant landfill for production CCR material. The Sierra Club, among others, filed a

[1] Times Free Press, TVA Moves to Dry Ash Disposal (May 15, 2010).

lawsuit challenging the adequacy of TVA's environmental review. That challenge was dismissed by the court. *See Tennessee Environmental Council v. TVA*, 32 F. Supp. 3d 876 (E.D. Tenn. 2014) (granting TVA's motion for summary judgment and dismissing plaintiffs' claims). TVA is in the initial phase of an environmental review for a dewatering facility that will dewater bottom ash. The dry bottom ash also will be placed in the new landfill.

- At the **Kingston Fossil Plant**, the transition to dry CCR management processes is almost complete. TVA has constructed and is operating a dewatering facility for all CCRs except bottom ash. A dewatering facility for bottom ash is approximately 65 percent complete. TVA sells approximately 60 percent of the dry fly ash, 25 percent of the gypsum, and 100 percent of the bottom ash for beneficial reuse. The CCR not beneficially reused is dry-stacked in a permitted, lined landfill.

This work has not been without difficulty. For example, TVA submitted to TDEC in January 2013 an application to modify the Kingston landfill permit to place fly ash and bottom ash in the Kingston landfill in addition to the gypsum already being placed there. TDEC's regulations provide for one public hearing and one notice and comment period on solid waste permitting decisions for new landfill facilities. Tenn. Comp. R. & Regs. § 0400-11-01-.02(3)(f). This regulation does not explicitly apply to the modification of an existing, active, permitted landfill. Nevertheless, TDEC granted *four* comment period extensions and scheduled *four* public meetings, which were requested by the same environmental advocacy groups now claiming that TVA is not moving fast enough in converting to dry storage. TDEC ultimately granted the permit modification, but not until September 2015, almost two years after TVA submitted its application.

TVA's efforts to meet its dry-storage commitment were underway when EPA proposed and promulgated its CCR Rule. Unlike other utilities, TVA was well along in CCR management planning activities and did not have to start from scratch when the CCR Rule was issued. Since the Rule's requirements were consistent with TVA's ongoing activities, TVA was able to modify its planning to support meeting its voluntary commitment and complying with the Rule. This included identifying those units that could be closed quickly.

1. *TVA has met its CCR Rule documentation requirements for all of its regulated impoundments; the CCR units described by SELC are not regulated by the CCR Rule.*

SELC's claim that TVA has not met CCR Rule requirements for certain impoundments is meritless. The units listed in SELC's letter are exempt from the CCR Rule, either because they are inactive landfills or because they are closed impoundments. By calling these units inactive impoundments, SELC is muddling the important distinction between the categories of units that are and are not regulated by the CCR Rule.

Concerning the categories of units that the CCR Rule was structured to regulate, EPA repeatedly observes in its preamble to the CCR Rule that the highest risk to human health and the

environment from CCR units results from the impoundment of water that increases downward and outward hydraulic pressures with the attendant increase in risks of groundwater contamination and structural instability:

- "And in the case of surface impoundments, the CCR is managed with water, *under a hydraulic head*, which promotes rapid leaching of contaminants into neighboring groundwater." 80 Fed. Reg. 21302, 21328 (Apr. 17, 2015).[2]
- "As noted, EPA's risk assessment shows that the highest risks are associated with CCR surface impoundments *due to the hydraulic head imposed by impounded water*." 80 Fed. Reg. at 21342.
- "Dewatered CCR surface impoundments *will no longer be subjected to hydraulic head* so the risk of releases, including the risk that the unit will leach into the groundwater, would be no greater than those from CCR landfills." *Id.*
- "Upon further evaluation of the comments, the Agency has amended the definition of CCR surface impoundment to clarify the types of units that are covered by the rule. After reviewing the comments, EPA reviewed the risk assessment and the damage cases to determine the characteristics of the surface impoundments that are the source of the risks the rule seeks to address. Specifically, these are units that contain a large amount of CCR *managed with water, under a hydraulic head that promotes the rapid leaching of contaminants*." 80 Fed. Reg. at 21357.

Because not all CCR units impound water, the CCR Rule applies to CCR units—landfills and impoundments—to different degrees. The Rule does not apply to inactive landfills at all. *See* 40 C.F.R. § 257.50(d) (2016) ("[t]his subpart does not apply to CCR landfills that have ceased receiving CCR prior to October 19, 2015."). According to EPA, this exemption exists because inactive landfills do not pose the same risk to human health and the environment as impoundments. Comparing landfills to dewatered impoundments, EPA states that dewatered impoundments are "no longer subjected to hydraulic head so the risk of releases, including the risk that the unit will leach into the groundwater, would be no greater than those from CCR landfills." 80 Fed. Reg. at 21342. Specific to inactive landfills, EPA then adds that "the Agency is not aware of any damage cases associated with inactive CCR landfills, and as noted, the risks of release from such units are significantly lower than CCR surface impoundments or active CCR landfills." *Id.* Inactive landfills, therefore, are not regulated by the CCR Rule.

EPA has explained that the CCR Rule does not regulate closed surface impoundments for the same reason that it does not regulate inactive impoundments—neither category impounds liquid.[3] In contrast to an inactive impoundment, EPA describes a closed impoundment as one that "would no longer contain water, although it may continue to contain CCR (or other wastes), and would be capped or otherwise maintained." 80 Fed. Reg. at 21343. EPA reiterates in this section of the

[2] Emphasis added here and throughout this letter unless otherwise noted.
[3] There also is a legal question concerning whether EPA has the authority to regulate inactive landfills and closed impoundments, given that no ongoing disposal of waste is occurring.

preamble that active and inactive surface impoundments are regulated because "there is little difference between the potential risks of an active and inactive impoundment; both can leak into groundwater, and both are subject to structural failures." *Id.* EPA then states, "[a]ccordingly, the final rule does not impose any requirements on any CCR surface impoundments that have in fact 'closed' before the rule's effective date—*i.e.*, those that no longer contain water *and can no longer impound liquid*." *Id.*

The Rule does apply, however, both to inactive and active impoundments. Both types of units impound water; the only difference is that inactive impoundments stopped receiving CCR prior to the effective date of the Rule. *See* 40 C.F.R. § 257.53 (2016) (defining the terms "inactive CCR surface impoundment," "existing surface impoundment," and "CCR surface impoundment"). Citing the Dan River spill from an inactive but impounded CCR unit, EPA explains its rationale in the preamble—both should be regulated because both impound water:

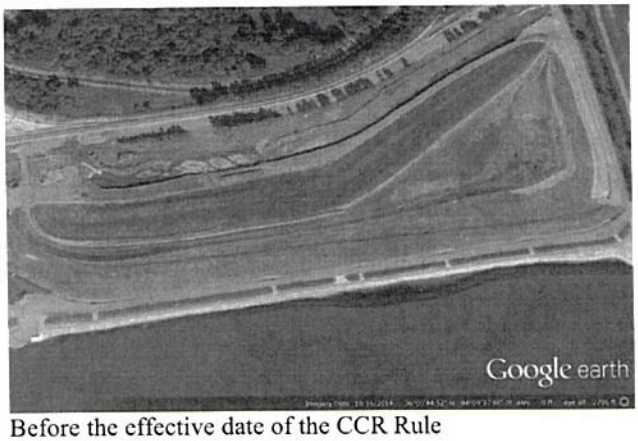
> EPA has documented several damage cases that have occurred due to inactive CCR surface impoundments, including the releases of CCR and wastewater from an inactive CCR surface impoundment into the Dan River . . . . As discussed in the proposal, the risks associated with inactive CCR surface impoundments do not differ significantly from the risks associated with active CCR surface impoundments; much of the risk from these units is driven *by the hydraulic head imposed by impounded units*. These conditions remain present in both active and inactive units, *which continue to impound liquid* along with CCR. For all these reasons, the Agency has concluded that inactive CCR surface impoundments require regulatory oversight.

80 Fed. Reg. at 21342. Thus, both inactive and active impoundments are regulated under the CCR Rule because both "continue to impound liquid along with CCR." *Id.*

These differences between inactive impoundments, inactive landfills, and closed impoundments are crucial to an understanding of each category's regulatory status, but SELC glosses over them with general assertions about TVA failing to post required information about its regulated surface impoundments. To the contrary, the CCR units that SELC claims are regulated "surface impoundments" do not impound water. They are either inactive landfills or closed impoundments, categories not regulated by the CCR Rule and categories that EPA's comprehensive investigation concluded do not pose a risk of harm to human health or the environment.

Pictured below are the CCR units listed in SELC's letter as regulated CCR surface impoundments even though they do not impound water and have not impounded water or received CCRs since before the effective date of the Rule:

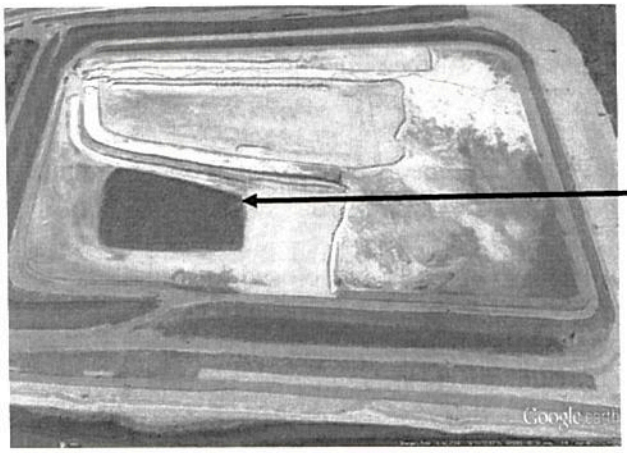
Bull Run Dry Bottom Ash Stack, an inactive landfill:

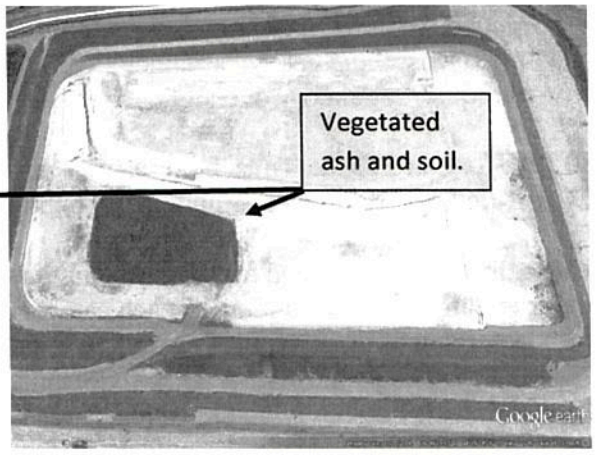


Before the effective date of the CCR Rule

Present-day condition

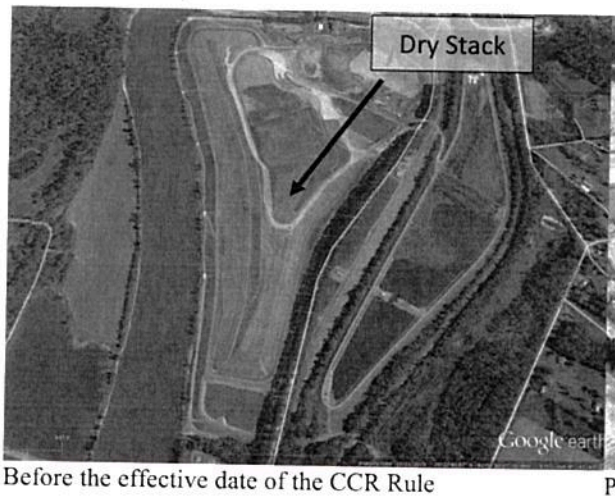
Bull Run Dry Gypsum Stack, an inactive landfill:


Before the effective date of the CCR Rule



Present-day condition

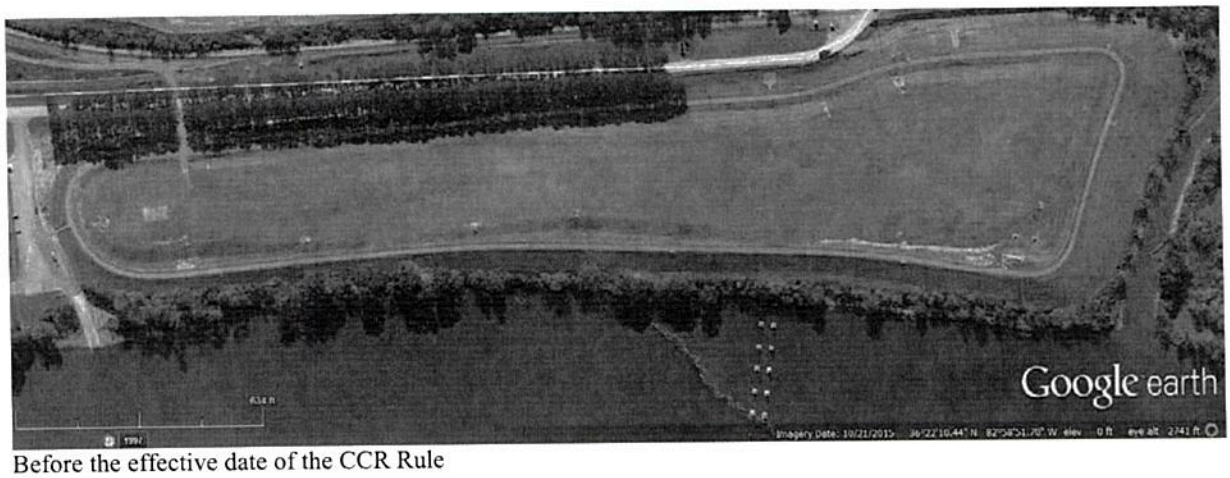
John Sevier Dry Stack, an inactive landfill:



Before the effective date of the CCR Rule

Present-day condition pictured from the opposite direction. Dormant sod vegetation is brown in color.

John Sevier Site J, a closed impoundment that does not impound water:



Before the effective date of the CCR Rule

Present-day condition

Top 20 Questions on EPA's CCR Final Rule

1. An owner or operator of an inactive CCR surface impoundment completes closure of the inactive impoundment within 36 months as prescribed by §257.100 of the rule. Is the owner or operator of the inactive impoundment subject to any other requirements of the CCR rule while the unit is being closed? For example, is the owner or operator subject to the structural stability and groundwater monitoring requirements of the CCR rule while the inactive impoundment is being closed?

- Answer: In addition to the closure-related requirements specified for inactive CCR surface impoundments in §257.100, the owner or operator of the inactive impoundment is also subject to certain recordkeeping, notification, and internet requirements, such as the requirement to submit notifications and annual progress reports. The owner or operator of an inactive impoundment that completes closure of the inactive impoundment in accordance with the procedures in §257.100 would not be subject to the requirements otherwise applicable to CCR surface impoundments, such as the structural stability and groundwater monitoring requirements.

2. If an impoundment is in the process of closure on the effective date of the rule and liquids have been drained from the unit and it is maintained during the closure process so that it can no longer impound water, is the unit an inactive CCR surface impoundment subject to regulation under the rule?

- Answer: An inactive CCR surface impoundment is defined as a CCR surface impoundment that no longer receives CCR on or after the effective date of the rule and that still contains both CCR and liquids on or after the effective date of the rule. If the unit is the process of closure and no longer contains liquid on the effective date of the rule, and is maintained during the closure process so that it can no longer impound liquids, the unit is not an inactive CCR surface impoundment.

3. Are inactive CCR landfills subject to the requirements of the CCR rule? An inactive landfill would be a unit that no longer receives CCR on or after the effective date of the rule.

- Answer: The CCR rule does not apply to inactive CCR landfills. See §257.50(d).

4. Does the CCR rule apply to CCR from a facility that is no longer part of the NAICS code 221112 (Fossil Fuel Electric Power Generation) because a fossil fuel power plant has closed if the CCR is sent for off-site management?

- Answer: The CCR rule does not apply to CCR generated by electric utilities and independent power producers that have ceased generating electricity (i.e., has closed) prior to the effective date of the rule. See §257(e).

5. Is CCR generated at an active facility (i.e., part of the NAICS code 221112) but then sent for management at a facility no longer producing power regulated under the CCR rule?

- Answer: CCR generated at an active facility but then sent for management at a facility no longer producing power is regulated under the rule. Section 257.50(b) specifies CCR generated by electric utilities and independent power producers that are generating electricity after the rule's effective date are subject to the rule. Section 257.50(b) specifies that the requirements also apply to CCR disposal units located off-site of the electric utility or independent power producer.

6. Is a fly ash pond located on the property of an electric utility that does not operate (i.e., the facility is not producing electricity) on or after the effective date of the rule subject to the requirements of the CCR rule?

- Answer: The CCR rule does not apply to CCR surface impoundments at electric utilities that no longer generate electricity.

7. Would a concrete basin be considered a surface impoundment under the CCR rule?

- Answer: EPA guidance for tanks under the Agency's subtitle C hazardous waste program would be relevant to this situation. Namely, "[i]n making this assessment, the unit should be evaluated as if it were free standing, and filled to its design capacity with the material it is intended to hold. If the walls or shell of the unit alone provide sufficient structural support to maintain the structural integrity of the unit under these conditions, the unit can be considered a tank. Accordingly, if the unit is not capable of retaining its structural integrity without supporting earthen materials, it must be considered a surface impoundment." So, using the same logic, if the concrete basin were free standing, and filled to its design capacity with the material it is intended to hold and the walls or shell of the unit alone provide sufficient structural support to maintain the structural integrity of the unit under these conditions, the unit would likely not be considered to be a surface impoundment.

8. The preamble of the CCR rule identifies certain impoundments as not being CCR surface impoundments – i.e., cooling water ponds, wastewater treatment ponds, storm water holding ponds, and aeration ponds. Are other types of ponds not specifically identified in the preamble but that similarly are not used to impound "significant quantities" of CCR considered not to be CCR surface impoundments.

- Answer: The final rule defines CCR surface impoundments as units that are designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR. Units that are not designed to hold an accumulation of CCR, and that do not treat, store, or dispose of CCR are not CCR surface impoundments. EPA provide examples in the preamble to the final rule of units that, in EPA's experience, typically would be expected to fall outside of that definition. These examples were not intended to be exclusive or definitive. There may well be additional units that do not meet the definition of a CCR surface impoundment. Similarly, there may be instances in which a particular "wastewater treatment pond" is in fact functioning as a CCR unit (e.g., a facility uses an existing CCR disposal unit for wastewater treatment without dredging the CCR out of the impoundment). Ultimately, the critical determinant of whether a unit is subject to the rule is whether it meets the criteria in the regulatory definition, rather than whether it was included as an example in the final rule preamble.

9. Are aquifers that do not yield a usable quantity or quality of groundwater covered by the rule's definition of "aquifer" which is limited to those "capable of yielding usable quantities of groundwater to wells or springs."

- Answer: The requirement to construct a unit with a base located no less than 1.52 meters (five feet) above the upper limit of the uppermost aquifer would not apply to geologic formations that are incapable of yielding usable quantities of groundwater to wells or springs. However, consistent with the final CCR regulations, as well as the part 258 regulations on which the CCR regulations are based, the quality and value of an aquifer should be a site-specific determination. Usable water in an aquifer typically includes all groundwater currently used or potentially available for drinking water and other beneficial uses (e.g., industrial or agricultural use), whether or not it is particularly vulnerable to contamination. The Agency is unable to judge the resource value of an aquifer based on a generic scale of significance because of the variability of aquifers on a site-by-site basis.

10. Within one year of the effective date of the rule, an owner or operator of an existing CCR surface impoundment must document whether or not the unit is constructed with either (1) a liner consisting of a minimum of two feet of compacted soil with a hydraulic conductivity of no more than $1x10^{-7}$ cm/sec; (2) a composite liner that meets the requirements of §257.70(b); or (3) an alternative composite liner that meets the requirements of §257.70(c). Can a natural clay liner system with a hydraulic conductivity of no more than $1x10^{-7}$ cm/sec be considered as meeting the standard?

- Answer: No, consistent with Part 258 (which is the source of this requirement) EPA considers compacted soil to mean soil that is mechanically compacted in lifts and not naturally compacted soil.

11. Does the CCR rule require an unlined CCR landfill to retrofit to install a composite liner?

- Answer: No; all existing CCR landfills can continue to operate for the remainder of their useful life without retrofitting to a composite or alternative composite liner system. Lateral expansions of these CCR landfills however are considered new units and must comply with the design requirements for new units including the installation of a composite or alternate composite liner and a leachate collection system.

12. The regulatory text at §257.90(b) specifies that a that a facility must begin evaluating data for a statistically significant increase for Appendix III constituents as the first round of sampling under detection monitoring. The facility is given 90 days to analyze these samples (at 257.93(h)(2)) and, if they show a statistically significant increase over background, it has another 90 days to begin assessment monitoring (at 257.95(b)). We believe that this provides a total of 2.5 years after the effective date of the rule (3 years after Federal Register publication) to begin assessment monitoring. Is this correct?

- Answer: The final rule provides a total of 2.5 years after the effective date of the rule (3 years after Federal Register publication) to begin assessment monitoring. Within 30 months of publication the facility must install the groundwater monitoring system, take eight independent samples of upgradient and downgradient wells to develop background levels, and begin detection monitoring. Within 90 days, the facility must determine if there is a statistically significant increase over background levels for any Appendix III constituent. If there is a statistically significant increase over background for any Appendix III constituent, the facility has 90 days to begin assessment monitoring. This provides for three years after the publication date before the facility would need to begin assessment monitoring, at the earliest.

13. Does background need to be established for both Appendix III and IV constituents within 30 months of publication or just Appendix III?

- Answer: Background levels have to be established for both appendix III and IV constituents within 30 months of publication. See §257.94(b).

14. Where is the point of compliance for groundwater monitoring?

- Answer: The objective of a ground-water monitoring system is to intercept groundwater that has been contaminated by leachate from the CCR unit. To accomplish this objective, the rule requires that downgradient monitoring wells must be installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer. (40 CFR § 257.91(a)(2)). If it is not feasible to install wells at the waste boundary (e.g., it would disturb the unit's liner), the owner or operator must install the wells at the closest feasible point from the waste management unit boundary.

15. Does the CCR rule prohibit a unit from closing using multiple closure methods – e.g., closing one portion of a large pond via clean closure and closing another portion of the same pond via closure in place (as would occur where CCR in the pond is consolidated towards the center to reduce the footprint and slope of the closure in place portion)?

- Answer: EPA agrees that the rule does not prohibit a unit from closing using multiple closure methods.

16. What is the relationship between the EPA and the states in regard to implementation of the CCR rule?

- Answer: The final rule establishes self-implementing requirements—primarily performance standards--that owners or operators of regulated units can implement without any interaction with regulatory officials. These requirements apply directly to the facilities. States are not required to adopt or implement these regulations, to develop a permit program, or submit a program covering these units to EPA for approval and there is no mechanism for EPA to officially approve or authorize a State program to operate "in lieu of" the federal regulations. In order to ease implementation the regulatory requirements for CCR landfills and CCR surface impoundments, EPA strongly encourages the States to adopt at least the federal minimum criteria into their regulations. EPA recognizes that some States have already adopted requirements that go beyond the minimum federal requirements; for example, some States currently impose financial assurance requirements for CCR units, and require a permit for some or all of these units. This rule will not affect these State requirements. The federal criteria are minimum requirements and do not preclude States' from adopting more stringent requirements where they deem to be appropriate.

17. What are the consequences, if any, to a state for not participating, i.e., not having an EPA-approved Solid Waste Management Plan or not having one that includes the CCR requirements?

- Answer: The rule imposes minimum federal criteria with which CCR units must comply without any additional action by a State or federal regulator. States are not required to adopt or implement these regulations, to develop a permit program, or submit a program covering these units to EPA for approval and there is no mechanism for EPA to officially approve or authorize a State program to operate "in lieu of" the federal regulations. The facilities will have to comply with the federal regulations whether or not the state adopts them. If the state has regulations that differ from the federal requirements, and the state does not adopt the federal rules, the facilities will have to comply with both sets of regulations. If a state does not revise their solid waste management plan and get it approved by EPA, the state will not be able to establish a compliance schedule for a facility.

18. How does the CCR rule impact CCR that are beneficially used?

- Answer: The final rule does not regulate CCR that are beneficially used. The Bevill determination remains unchanged for beneficial use. This rule provides a definition of beneficial use to distinguish between beneficial use and disposal. The rule clarifies that a use of a CCR that does not meet the definition of a beneficial use is disposal.

19. Are CCR piles located in a containment building that protect it from the elements considered a CCR pile subject to the requirements for CCR landfills?

- Answer: No, as defined in the rule, a CCR pile or pile means any non-containerized accumulation of solid, non-flowing CCR that is place on the land. CCR piles that are containerized, or that are placed on an impermeable base with runoff control and fugitive dust control are not considered CCR piles and are not subject to the requirements of the rule. Therefore, if an accumulation of CCR is in a building that meets the above criteria, it would not be subject to the requirements of the rule.

20. When will the CCR rule be published in the Federal Register?

- Answer:

Friday, April 17, 2015

CCR Rule Implementation Dates

- CCR Rule is scheduled to be published in the Federal Register on April 17, 2015
- If published on April 17, the effective date of the rule would be October 14, 2015
- Tables 1 & 2 show the implementation time frames for existing CCR surface impoundments and existing CCR landfills based on an April 17 rule publication

Table 1–Existing Surface Impoundments

Requirement	Deadline to Comply	Description of Requirement
Location Restrictions (§257.60 - §257.64)	Oct 17, 2018	- Complete demonstrations for placement above the uppermost aquifer, wetlands, fault areas, seismic impact zones, and unstable areas
Design Criteria (§257.71)	Oct 17, 2016	- Document whether CCR unit is either a lined or unlined surface impoundment
Structural Integrity (§257.73)	Dec 17, 2015	- Install permanent marker
	Oct 17, 2016	- Compile a history of construction
	Apr 17, 2017	- Complete initial assessments (hazard potential classification, structural stability, & safety factor)
	Apr 17, 2017	- Prepare emergency action plan
Air Criteria (§257.80)	Oct 19, 2015	- Prepare fugitive dust control plan
Hydrologic and Hydraulic Capacity (257.82)	Oct 17, 2016	- Prepare initial inflow design flood control system plan
Inspections (§257.83)	Oct 19, 2015	- Initiate weekly inspections of the CCR unit
	Oct 19, 2015	- Initiate monthly monitoring of instrumentation
	Jan 18, 2016	- Complete initial annual inspection of CCR unit

Table 1–Impoundments cont.

Requirement	Deadline to Comply	Description of Requirement
Groundwater Monitoring and Corrective Action (§257.90 - §257.98)	Oct 17, 2017	- Install the groundwater monitoring system; develop the groundwater sampling & analysis program; initiate the detection monitoring program; and begin evaluating the groundwater monitoring data for statistically significant increases over background levels
Closure & Post-Closure Care (§257.103 - §257.104)	Oct 17, 2016	- Prepare written closure and post-closure care plans
Recordkeeping, Notification, and Internet Requirements (§257.105 - §257.107)	Oct 19, 2015 Oct 19, 2015 Oct 19, 2015	- Conduct required recordkeeping - Provide required notifications - Establish CCR website

Table 2-Existing CCR Landfills

Requirement	Deadline to Comply	Description of Requirement
Location Restrictions (§257.60 - §257.64)	Oct 17, 2018	- Complete demonstration for unstable areas
Air Criteria (§257.80)	Oct 19, 2015	- Prepare fugitive dust control plan
Run-On & Run-Off Controls (257.82)	Oct 17, 2016	- Prepare initial run-on and run-off control system plan
Inspections (§257.83)	Oct 19, 2015 Jan 18, 2016	- Initiate weekly inspections of the CCR unit - Complete initial annual inspection of CCR unit
Groundwater Monitoring and Corrective Action (§257.90 - §257.98)	Oct 17, 2017	- Install the groundwater monitoring system; develop the groundwater sampling & analysis program; initiate the detection monitoring program; and begin evaluating the groundwater monitoring data for statistically significant increases over background levels
Closure & Post-Closure Care (§257.103-257.104)	Oct 17, 2016	- Prepare written closure and post-closure care plans
Recordkeeping, Notification, and Internet Requirements	Oct 19, 2015 Oct 19, 2015 Oct 19, 2015	- Conduct required recordkeeping - Provide required notifications - Establish CCR website

Thank you

Questions?

SETTLEMENT AGREEMENT

WHEREAS, on April 17, 2015, the United States Environmental Protection Agency ("EPA") published a regulation promulgated pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901, *et seq.* ("RCRA"), titled "Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities," 80 Fed. Reg. 21,302 (Apr. 17, 2015) ("Final Rule");

WHEREAS, Clean Water Action, Environmental Integrity Project, Hoosier Environmental Council, PennEnvironment, Prairie Rivers Network, Sierra Club, Tennessee Clean Water Network, and Waterkeeper Alliance (collectively "Environmental-Petitioners") and Utility Solid Waste Activities Group, Edison Electric Institute, National Rural Electric Cooperative Association, American Public Power Association, Beneficial Reuse Management, Lafarge North America Inc., Lafarge Midwest, Inc., Lafarge Building Materials Inc., Associated Electric Cooperative, Inc., City of Springfield, Missouri Board of Public Utilities, and AES Puerto Rico, LP (collectively "Industry-Petitioners"), have petitioned for review of the Final Rule in the United States Court of Appeals for the District of Columbia (the "Court") in seven separate actions consolidated under D.C. Circuit Case No. 15-1219 (the "Pending Action");

WHEREAS, in response to certain of the claims in the Pending Action, Respondent EPA has determined that it is prudent to reconsider through further administrative proceedings certain specific provisions of the Final Rule ("Reconsidered Provisions") and to file with the Court a Motion to Remand the Reconsidered Provisions ("Motion to Remand"), said Motion being unopposed by Environmental-Petitioners and Industry-Petitioners, except that the undersigned Industry-Petitioners take no position on the remand of Reconsidered Provision D and the remand and vacatur of Reconsidered Provision B; the remaining Industry-Petitioners have authorized counsel for the undersigned Industry Petitioners to state that the issues addressed in the Motion

to Remand are not among the issues they are pursuing in the Pending Action and that they accordingly take no position on the Motion to Remand;

WHEREAS, the Reconsidered Provisions call for the following:

A. Remand with vacatur of the of the phrase "not to exceed 6 inches above the slope of the dike" within 40 C.F.R. §§ 257.73(a)(4), 257.73(d)(1)(iv), 257.74(a)(4), and 257.74(d)(1)(iv);

B. Remand with vacatur of 40 C.F.R. § 257.100, *except* for the following clause contained in 40 C.F.R. § 257.100(a): "Inactive CCR surface impoundments are subject to all of the requirements of this subpart applicable to existing CCR surface impoundments;" Such vacatur shall be effective as set forth in the Motion to Remand;

C. Remand without vacatur of:

1. The sentence in 40 C.F.R. § 257.90(d) that provides: "The owner or operator of the CCR unit must comply with all applicable requirements in 257.96, 257.97, and 257.98;" and

2. The phrase in 40 C.F.R. § 257.96(a) that provides "or immediately upon detection of a release from a CCR unit," said remand for the purpose of proposing to clarify the type and magnitude of non-groundwater releases that would require a facility to comply with some or all of the corrective action procedures set forth in 40 C.F.R. §§ 257.96-257.98 in meeting their obligation to clean up the release;

D. Remand without vacatur of Appendix IV to the Final Rule for the sole purpose of proposing that Boron be added to the list of constituents in Appendix IV that trigger assessment monitoring and corrective action; and

E. Remand without vacatur of 40 C.F.R. § 257.103(a) and § 257.103(b) for further consideration of whether to expand this provision to situations in which a facility needs to continue to manage waste streams other than CCR in the waste unit;

WHEREAS the remand, and vacatur where applicable, of the Reconsidered Provisions may have some effect on one or more of the Environmental and/or Industry Petitioners or members thereof, and the Parties agree to attempt to address those effects through this Settlement Agreement ("Agreement"); and

WHEREAS, it is in the interest of the public, the Parties, and judicial economy to resolve the identified issues without further litigation;

NOW, THEREFORE, the Environmental-Petitioners, the undersigned Industry-Petitioners, and EPA, each intending to be bound by this Agreement, hereby agree as follows:

I. PARTIES

1. The Parties to this Agreement are Environmental-Petitioners, the undersigned Industry-Petitioners, and EPA (collectively the "Parties"). The Parties understand that Gina McCarthy was sued in her official capacity as Administrator of the United States Environmental Protection Agency and that the obligations arising under this Agreement are to be performed by EPA and not by Gina McCarthy in her individual capacity.

2. This Agreement applies to, is binding upon, and inures to the benefit of Environmental-Petitioners and the undersigned Industry-Petitioners (and their successors, assigns, and designees) and EPA.

II. ACTIONS TO BE TAKEN BY EPA

3. EPA shall publish a proposed rule or rules ("Remand Rule") to:

A. In response to the vacatur and remand of the provisions requiring "vegetative slopes of dikes not to exceed a height of 6 inches above the slope of the dike" in 40 C.F.R. §§ 257.73(a)(4), 257.73(d)(1)(iv), 257.74(a)(4), and 257.74(d)(1)(iv), establish requirements relating to the use of vegetation as slope protection on CCR surface impoundment dikes;

B. Clarify the type and magnitude of non-groundwater releases that would require a facility to comply with some or all of the corrective action procedures set forth in 40 C.F.R. §§ 257.96-257.98 in meeting their obligation to clean up the release; and

C. Add Boron to the list of contaminants in Appendix IV of the Final Rule that trigger the assessment monitoring and corrective action requirements under the Final Rule.

4. EPA shall issue the proposed Remand Rule(s) described in paragraph 3 above as soon as practicable. EPA presently intends to take final action on the matters set forth in paragraph 3 above (the Remand Rule) within three years of an Order from the Court granting the Motion for Remand. Any final rule or rules issued with regard to the remanded issues will be based on the comments received on the proposed Remand Rule(s) and other pertinent information and data. Nothing herein shall be construed to prejudge the substance, findings or provisions of any final Remand Rule(s) issued by EPA pursuant to this Agreement.

5. In order to ameliorate the effects to those owners or operators who relied on the early closure provision (40 C.F.R. § 257.100) that EPA seeks to vacate through the Motion to Remand, EPA shall propose a rule (the "Extension Rule") that is applicable only to those owners or operators that by December 17, 2015, submitted notification of their intent to initiate closure of an inactive CCR surface impoundment pursuant to 40 C.F.R. § 257.100(b) and placed such notification on the owner or operator's CCR Web site by January 18, 2016, as required by 40

C.F.R. § 257.107(i)(1). The proposed Extension Rule shall extend by 525 days (the approximate number of days between the signature date of the Final Rule, December 19, 2014, and an Order from the Court granting the Motion to Remand), the following deadlines ("Extension Period"):

A. Deadline to complete the demonstrations for compliance with the location restrictions, set forth in 40 C.F.R. §§ 257.60(c)(1), 257.61(c)(1), 257.62(c)(1), 257.63(c)(1), 257.64(d)(1));

B. Deadline to document whether the CCR impoundment is lined or unlined, set forth in 40 C.F.R.§ 257.71(a)(1);

C. Deadline to install permanent markers, set forth in 40 C.F.R. § 257.73(a)(1);

D. Deadline to document the CCR unit's history of construction set forth in 40 C.F.R. § 257.73(c)(1);

E. Deadline to complete the initial hazard potential classification assessment, initial structural stability assessment, and initial safety factor assessment set forth in 40 C.F.R. § 257.73(f)(1);

F. Deadline to prepare an Emergency Action Plan, set forth in 40 C.F.R. § 257.73(a)(3);

G. Deadline to prepare a fugitive dust control plan set forth in 40 C.F.R. § 257.80(b)(5);

H. Deadline to prepare an initial inflow design flood control system plan set forth in 40 C.F.R. § 257.82(c)(3);

I. Deadline to initiate weekly inspections of the CCR unit and monthly monitoring of CCR unit instrumentation set forth in 40 C.F.R. § 257.83(a)(2);

J. Deadline to complete the initial annual inspection of the CCR unit set forth in 40 C.F.R. § 257.83(b)(3);

K. Deadline to install the groundwater monitoring system, and begin monitoring, set forth in 40 C.F.R. § 257.90(b);

L. Deadline to prepare an initial groundwater monitoring and corrective action report, set forth in 40 C.F.R. § 257.90(e);

M. Deadline to prepare a written closure plan, set forth in 40 C.F.R. § 257.102(b)(2); and

N. Deadline to prepare a written post-closure care plan, set forth in 40 C.F.R. § 257.104(d)(2).

6. EPA shall issue the proposed Extension Rule within 60 days of an Order from the Court granting the Motion for Remand. EPA will transmit the proposed Extension Rule to the Office of the Federal Register as expeditiously as possible thereafter for publication. EPA will make its best efforts to sign a notice taking final action on the proposed Extension Rule within 120 days of the close of the comment period, but will in any event sign a notice taking final action no later than April 17, 2017. EPA will transmit the signed notice to the Office of the Federal Register as expeditiously as possible thereafter for publication.

7. The Parties agree that EPA may satisfy the requirements set forth in Paragraphs 5 and 6 of this Agreement through the promulgation of a direct final Extension Rule, which it may issue simultaneously with the proposed Extension Rule. If EPA receives adverse comments on such direct final Extension Rule and as a consequence withdraws it, EPA will inform the Parties and continue to proceed with the proposed Extension Rule referenced in Paragraph 6.

8. If the number of days between the signature date of the Final Rule (December 19, 2014) and issuance of the Order granting the Motion to Remand turns out to be greater than 525 days, the number of days comprising the extension period in the proposed Extension Rule described in Paragraph 5 shall automatically be increased to reflect the actual number of days between signature of the Final Rule (December 19, 2014) and the issuance of the Order granting the Motion to Remand.

III. ACTIONS BY PETITIONERS AND REMEDIES FOR NON-PERFORMANCE

9. Environmental-Petitioners and the undersigned Industry-Petitioners agree to the dismissal of their claims challenging the Remanded Provisions as set forth in EPA's Motion for Remand, said dismissal to become effective upon issuance of an Order from the Court granting the Motion to Remand. Specifically, the undersigned Industry-Petitioners agree to dismissal of their claims described in their Brief submitted to the Court (Doc. No. 1589625) at issues III,D and III,E (lack of notice of two specific criteria) and IV,C,ii (Alternative Closure as applied to non-CCR waste), and Environmental-Petitioners agree to dismissal of their claims described in their Brief submitted to the Court (Doc. No. 1589399) at issues IV (early closure provision) and V (Boron as a covered contaminant).

10. In the event EPA fails to issue a Final Remand Rule(s) within the time periods set forth in paragraph 4 above or sign a notice taking final action on the proposed Extension Rule by April 17, 2017, the undersigned Petitioners' sole remedy is to initiate an action under the Administrative Procedure Act, 5 U.S.C. §§ 551-706, asserting unreasonable delay by EPA in concluding proceedings on the Final Remand Rule(s) or taking final action in issuing the Extension Rule. EPA fully intends to issue the Final Remand Rule(s) within the time periods set forth in paragraph 4 above and to sign a notice taking final action on the proposed Extension

Rule by April 17, 2017. Nevertheless, because future events cannot be predicted, nothing herein shall be deemed to waive any defense to any action alleging unreasonable delay by EPA in issuing the Final Remand Rule(s) or signing a notice taking final action on the proposed Extension Rule. Any such filed challenge renders any remaining EPA obligations under this Agreement pertaining to the Challenged Rule (i.e., the Remand Rule or Extension Rule, whichever is challenged) null and void.

11. Under no circumstances shall any provision of this Agreement be the basis for any action for specific performance, mandamus, or any other remedy seeking to compel EPA to take any of the actions referenced in this Agreement. The Parties agree that contempt of court is not an available remedy for a breach of this Agreement. Nothing herein prevents any party from bringing an action asserting that EPA has unreasonably delayed taking some action.

12. Nothing herein shall prohibit any Petitioner from challenging the Final Remand Rule(s) or Extension Rule upon their promulgation.

IV. EFFECTIVE DATE

13. This Agreement shall not become effective unless and until it is executed by the representatives of all Parties and until the Court issues an Order granting the Motion to Remand. The Agreement may be executed in counterparts.

14. In the event the Agreement is executed by representatives of all Parties but the Court does not issue an Order granting the Motion to Remand substantially in the form set forth in the Motion to Remand, the Parties may attempt to renegotiate this Agreement to conform with the actions of the Court. In such event, nothing herein shall obligate any Party to agree to a modified Settlement Agreement.

V. GENERAL PROVISIONS

15. The Parties may agree in writing to modify any term of this Agreement. Except for the modification referred to in paragraph 8, above, any such written modification must be executed by all Parties.

16. This Agreement was negotiated between the undersigned Petitioners and EPA in good faith and jointly drafted by the Parties. The Parties hereby agree that any and all rules of construction to the effect that ambiguity is construed against the drafting party shall be inapplicable in any dispute concerning the terms, meaning, or interpretation of this Agreement.

17. This Agreement contains all terms and conditions agreed upon by the Parties. All statements, representations, promises, agreements, or negotiations, oral or otherwise, among the Parties or counsel that are not included herein are specifically superseded by this Agreement and shall have no force or effect.

18. This Agreement shall not constitute or be construed as an admission or adjudication by the United States or EPA or by any other person or entity of any question of fact or law with respect to any of the claims raised in the Pending Action, nor is it an admission of violation of any law, rule, regulation, or policy by the United States or EPA.

19. Nothing in this Agreement shall be construed to limit or modify the discretion accorded to EPA under RCRA, general principles of administrative law, or under any other statues or regulations, nor shall it in any way be deemed to limit EPA's discretion in adopting any final rule or taking any other administrative action.

20. Nothing in this Agreement shall be construed to limit EPA's authority to alter, amend, or revise any final rule, guidance, permit, interpretation or other administrative action that EPA has issued or may issue, or to promulgate superseding regulations. Correspondingly, nothing herein shall be construed to limit the undersigned Petitioners' ability to seek

administrative or judicial review of any such alteration, amendment, revision, superseding regulation or administrative action.

21. No provision of this Agreement shall be interpreted as or constitute a commitment or requirement that EPA obligate or pay funds in contravention of the Anti-Deficiency Act, 31 U.S.C. § 1341, or take actions in contravention of the Administrative Procedure Act, 5 U.S.C. §§ 551-559, 701-706, RCRA, 40 U.S.C. §§ 6901 *et seq.*, or any other law or regulation, either substantive or procedural.

22. Nothing in this Agreement shall be construed to confer upon a district or appellate court jurisdiction to review any decision to be made by EPA pursuant to this Agreement that would not otherwise be reviewable by such court, or to otherwise confer upon a district court jurisdiction to review any issues that are within the exclusive jurisdiction of the United States Courts of Appeals under section 7006 of RCRA, 42 U.S.C. § 6976.

23. If a subsequent change in law alters or relieves EPA of any of its obligations concerning the matters addressed in this Agreement, then this Agreement shall be amended to conform to such changes.

24. Nothing in this Agreement shall be construed to make any other person or entity not executing this Agreement a third-party beneficiary to this Agreement.

25. This Agreement shall not be admitted against EPA for any purpose in any proceeding, except an action for unreasonable delay or non-compliance with any obligation set forth herein.

26. EPA will promptly notify the undersigned Petitioners if it believes that it will be unable to meet one or more of the dates specified in Paragraphs 4 or 6 above because of any of the following circumstances beyond its control: (a) a government shutdown; (b) an extreme

weather event that renders EPA staff unable to complete the work necessary to meet the deadlines; (c) a catastrophic environmental event (e.g., natural disaster or environmental accident) that results in the necessary diversion of EPA staff resources away from the work needed to meet the deadlines in this Agreement. Should EPA be unable to meet the dates in Paragraphs 4 or 6 due to one or more of the specific circumstances listed in this paragraph, then any resulting failure by EPA to meet that date shall not constitute a failure to comply with the terms of this Agreement, and the date or dates so affected shall be extended one business day for each day of the unavoidable delay, unless the Parties agree to a longer period. In the event that EPA invokes this provision, it will provide the undersigned Petitioners with reasonable notice and explanation for any unavoidable delay.

27. The individuals signing this Agreement on behalf of the Parties hereby certify that they are authorized to bind their respective parties to this Agreement.

28. This Agreement shall be governed and construed under the laws of the United States.

29. Any notice required or made with respect to this Agreement shall be in writing and shall be effective upon receipt. For any matter relating to this Agreement, notice shall be sent to a Party by sending such notice to signatories for such Party listed below.

30. The headings contained in this Agreement are for convenience only and shall not be construed as having any substantive effect.

31. Counsel for the following Industry Petitioners have authorized counsel for the undersigned Industry Petitioners to state that the issues addressed in this Agreement, including but not limited to the issues set out in the fourth Whereas Clause and numbered paragraph nine of this Agreement, are not among the issues they are pursuing in the Pending Action and that

they accordingly take no position on the terms of this Agreement: Beneficial Reuse Management, Lafarge North America Inc., Lafarge Midwest, Inc., Lafarge Building Materials Inc., Associated Electric Cooperative, Inc., City of Springfield, Missouri Board of Public Utilities, and AES Puerto Rico, LP.

So agreed to by:

Date: 4/13/16

Douglas H. Green
John F. Cooney
Margaret K. Kuhn
Venable LLP
575 7th Street NW
Washington, DC 20002
(202) 344-4483
dhgreen@venable.com

On behalf of: *Utility Solid Waste Activities Group, Edison Electric Institute, American Public Power Association, and National Rural Electric Cooperative Association*

Date: 4/18/16

Perry M. Rosen
U.S. Department of Justice
Environment & Natural Resources Div.
PO Box 7611, Ben Franklin Station
Washington, DC 20044

Laurel Celeste
U.S. Environmental Protection Agency
Office of General Counsel
William Jefferson Clinton Building
1200 Pennsylvania Ave., NW
Mail Code 2344A
Washington, D.C. 20460
Tel: 202-564-1751

On behalf of: *United States Environmental Protection Agency*

Date: 4/14/2016

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On behalf of: *Clean Water Action, Comité Dialogo Ambiental, Inc., Environmental Integrity Project, Hoosier Environmental Council, PennEnvironment, Prairie Rivers Network, Sierra Club, Tennessee Clean Water Network, and Waterkeeper Alliance*

Attachment C

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Solid Waste Management
William R. Snodgrass Tennessee Tower
312 Rosa L. Parks Avenue, 14th Floor
Nashville, Tennessee 37243

August 6, 2015

Mr. Sam Hixson, Manager
TVA Waste Compliance, Permitting, and Monitoring
Tennessee Valley Authority
1101 Market Street BR 4A
Chattanooga, TN 37402

Dear Mr. Hixson:

The Department of Environment and Conservation (TDEC) is responding to your July 28 letter that provided notification by the Tennessee Valley Authority (TVA) of preliminary closure activities at their Bull Run Fly Ash Pond. This preliminary closure activity involves temporary storage of bottom ash from the Bottom Ash Disposal area onto the inactive (dry) area of the Fly Ash Pond. For purposes of temporary storage of the bottom ash, the Division of Solid Waste Management (DSWM) affirms that this activity falls within Section VII D. 4. of Commissioner's Order Number OGC15-0177. That Section states that:

> Notwithstanding any other provision of this Order, TVA may proceed immediately with preliminary activities (e.g., pond surface water drawdown, contouring, etc.) that are necessary to prepare CCR-surface impoundments and/or landfills for closure; provided, however, that discharges from permitted outfalls must remain within limits set forth in applicable National Pollutant Discharge Elimination System permits.

Procedures necessary to ensure compliance with the NPDES permits should be discussed with TDEC's Division of Water Resources.

Based on the limited information in your notification letter, DSWM is not able at this time to make a determination that the use of bottom ash in the closure of the Fly Ash Pond is a beneficial use. A justification or rationale for a beneficial use determination should be included in the detailed closure plan for the Bull Run Fly Ash Pond. It is our understanding that a closure plan for TVA's Bull Run facility will be submitted in the near future. For questions, please call me at (615) 532-0818.

Sincerely,

Glen Pugh, Program Manager

GAP/ljb

cc: Vojin Janjic, Manager, Nashville Central Office, DWR
Revendra Awasthi, Manager, Knoxville Environmental Field Office, DSWM

Subject: Re: test
Date: Thursday, February 18, 2016 at 12:54:17 PM Central Standard Time
From: Souders, Steve <Souders.Steve@epa.gov>
To: Mark Quarles <markquarles@comcast.net>
CC: Schoenborn, William <Schoenborn.William@epa.gov>

Hi Mark,

We do not have an official definition of the term "dewatered" with respect to closure of a CCR surface impoundment with CCR in place and, as you noted, we did not elaborate on this in the preamble to the CCR rule. However, section 257.102 (d) of the rule sets forth requirements for CCR surface impoundments closing with the CCR in place, specifically, section 257.102(d) (2) requires the owner or operator of a CCR surface impoundment (CCR unit) to eliminate free liquids by removing liquid waste and/or solidifying the remaining wastes and waste residues prior to installing the final cover system. The remaining wastes and waste residues must be sufficiently stabilized to support the final cover system. For purposes of the rule "free liquids" is defined as liquids which readily separate from the solid portion of a waste under ambient temperature and pressure. So while the rule does not explicitly require that dewatering include removal of pore water, in order to meet these requirements, the pore water may also need to be removed.

Regarding your questions pertaining to uppermost aquifers, please contact Bill Schoenborn (who I've copied on this email) by phone at 703-308-8483 or by email at schoenborn.william@epa.gov.

I hope this helps.

Steve Souders
U.S. Environmental Protection Agency
Office of Resource Conservation and Recovery
Materials Recovery and Waste Management Division
Mail Code 5304P
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Phone: 703-308-8431

From: Mark Quarles <markquarles@comcast.net>
Sent: Wednesday, February 17, 2016 4:11 PM
To: Souders, Steve
Subject: test

Mark Quarles, P.G.
Global Environmental, LLC
615-646-0969 office
615-504-0956 mobile

Pearce, Jennifer

From: Love, Kelly A <kalove@tva.gov>
Sent: Thursday, February 9, 2017 1:10 PM
To: Martineau, Robert, Jr.
Cc: 'Shari.Meghreblian@tn.gov'; 'Pat.Flood@tn.gov'; Chuck Head (Chuck.Head@tn.gov); Jenny Howard; Joe Sanders; 'Tisha.calabrese@tn.gov'; Johnson, Barnes; 'farmer.paul@epa.gov'; Zapata, Cesar; Newman, Alan; Celeste, Laurel; Quirk, Sherry Ann; Birdwell, Jodie Allyn
Subject: TVA's Response to Environmental Advocacy Groups' Recent Claims regarding TVA's CCR Rule Compliance
Attachments: 2017-02-09 - Love ltr to Martineau - Response re TVA's Compliance with CCR Rule.pdf; Attachment A, EPACCRRule20Questions04152015.pdf; Attachment B, CCRSettlementAgreement.pdf; Attachment C, 150806 Letter from G. Pugh re BullRuntempstorage.pdf; Attachment D, EPA Souders Feb 18_2016.pdf

Commissioner Martineau –

Please find attached an electronic copy of a letter I've placed in the mail to you today. This letter responds to the December 21, 2016, letter to you from the Southern Environmental Law Center and other environmental advocacy groups claiming that TVA is not in compliance with the CCR Rule.

Best regards,
Kelly Love

Kelly A. Love
Associate General Counsel, Office of the General Counsel
Tennessee Valley Authority
1101 Market Street, SP6B
Chattanooga, TN 37402
Phone: (423) 751-3945
kalove@tva.gov